

# Corrections and Additions to the Flora of the Hall Islands and to the Flora of Ponape

BENJAMIN C. STONE<sup>1</sup>

SINCE THE PUBLICATION of a check list of the plants collected in Namonuito and the Hall Islands (Caroline Islands) (Stone, 1959: 88–104), certain corrections and additions have come to the author's attention. Owing to an oversight, the collection of plants made on Nomwin Atoll by F. R. Fosberg was not mentioned. Fosberg visited Nomwin on May 29 and 30, 1946, and collected 52 specimens, including certain mosses and fungi. A brief report was issued as carbon copies, but no critical determinations were included in it. Most of the specimens are now widely scattered to various institutions and so were unavailable to the present author. However, only a few of these specimens have not been previously mentioned. Since the collections are currently being examined for the "Catalog of the Micronesian Flora," they will not be cited here in detail.

## HALL ISLANDS

DIOSCOREACEAE: *Dioscorea* sp. The yam, probably *D. bulbifera*, was collected on Nomwin (Fosberg no. 24589).

PIPERACEAE: *Piper fragile* Benth. Hook. J. Bot. 2: 234, 1843. This was first included (Stone, 1959: 100) as a tentative determination. It has now been substantiated by T. G. Yuncker (1959: 92) on the basis of Fosberg's no. 24580 from Nomwin. This species and *P. ponapense* C.DC. are also to be found on Namonuito.

COMBRETACEAE: *Terminalia Catappa* L. Observed by Fosberg on Nomwin.

The following corrections have been necessitated by further study or in agreement with recent research:

DAVALLIACEAE: *Nephrolepis hirsutula* (Forst. f.) Presl. Tent. 79, 1836. At the suggestion of Dr. Fosberg, the plant previously cited as *N.*

*biserrata* (Sw.) Schott was re-examined, resulting in this change. Even this, however, is perhaps still doubtful, and the distinctions between these two species and *N. exaltata* do not always seem clearly applicable to certain Micronesian specimens of this fern.

LEGUMINOSAE: *Canavalia microcarpa* (DC.) Piper is listed by Kanehira (1935: 328), Glassman (1953: 300), Anderson (1951: i), and Fosberg (1955: 11) from various localities in Micronesia. Fosberg's specimen from Nomwin (no. 24586) tentatively has been called *C. microcarpa*. This may represent a second species of *Canavalia* in the Hall Islands, but the species of Micronesia require a broad and careful study to clarify their status and names. Kanehira (l.c.) lists four species, one of which (*C. megalantha* Merr.) is presumably restricted to Guam. *Canavalia ensiformis* (L.) DC. was reported from Guam, Yap, and Jaluit. *C. lineata* (Thunb.) DC. was reported from Guam, and later from Truk (Hosokawa, 1937: 191). St. John (1951: 282) has recorded *C. sericea* Gray (the type from Fiji) from the Marshall Islands. If the Guam endemic is truly so, there are thus five taxa to be considered, including *C. maritima* (Aublet) Thouars, which is recorded from Ponape by Glassman (1952: 74). That the genus includes a number of Pacific species is not to be doubted, but until a revision of the group is initiated, some confusion must exist about the occurrence and distribution of the Micronesian species.

EUPHORBIACEAE: *Phyllanthus amarus* Schum. & Thonn. This name should replace *P. niruri* L. (cf. Stone 1959: 102). G. L. Webster (1956) has shown that the Pacific plants which generally have been called *P. niruri* belong actually to *P. amarus*, and that the former is an American species apparently not occurring in the Pacific. The plants from Ponape which have been called *P. niruri* probably also should be *P. amarus*.

<sup>1</sup> Department of Botany, University of Hawaii. Manuscript submitted June 9, 1959.

GOODENIACEAE: *Scaevola sericea* Vahl should replace *S. frutescens*.

VERBENACEAE: *Callicarpa candicans* (Burm.f.) Hochr. should replace *C. cana*.

#### PONAPE

During the early part of 1957 the writer had the opportunity to botanize in Ponape. The following records are intended as supplementary to Glassman's excellent list of the flora (1952). Several hundred specimens were collected, but only those of particular interest because of rarity or which are new records will be cited here. (S, indicates the author's collection.)

HYMENOPHYLLACEAE: *Cephalomanes boryanum* (Kunze) V.d.B. (Ponape, Mt. Tolen-kiepw trail, elev. 1,000 ft., growing on wet rocks, fronds blackish-green in reflected light, yellow-green and translucent in transmitted light, common, 23 March 1957, S. 1730.)

*Trichomanes intermedium* v.d.B. (Same locality and date, S. 1739.) These two determinations by Dr. K. U. Kramer. A new record for Ponape.

ASPLENIACEAE: *Loxoscaphe* sp. (vel aff. *L. foeniculaceum* (Hooker) Moore, of Fiji.) (Same locality and date, at a higher elevation of 1,700 ft., epiphytic, the pinnae stiff, S. 1743.) Not previously listed for Ponape.

*Prosaptia alata* (Bl.) Christ. (Same locality and date, S. 1737.) Known previously from Ponape and Kusaie, but sparsely represented from Ponape. Det. K. U. Kramer.

*Weatherbya accedens* (Bl.) Copel. (Mt. Tolen-kiepw trail, elev. 1,700 ft., 24 March 1957, S. 1745.) A small epiphytic fern (described from Java) previously collected in Ponape by Kanehira, Takamatsu, and Glassman.

OXALIDACEAE: *Averrhoa Carambola* L. The carambola is planted around the Protestant Church in Colonia.

NYCTAGINACEAE: *Mirabilis Jalapa* L. This ornamental herb, so frequent in atoll villages, is also to be seen in and around Colonia.

MELASTOMACEAE: *Astronidium ponapense* (Kanehira) Markgr. (Mt. Tolen-kiepw, 1,700

ft. elev., 24 March 1957, S. 1749.) This, like *Melastoma*, is called by the Ponapeans "kisetikumu-mai."

LEGUMINOSAE: *Pongamia pinnata* (L.) Merr. Probably introduced by the German or Japanese administrations, this tree occurs at the Agriculture Station and elsewhere. It may be considered an escape. Another tree which may be a *Dalbergia* occurs at Madolenimw. (*P. pinnata*, Agric. Sta., 25 March 1957, S. 1758.)

*Mucuna ponapeana* Hosokawa. A vine endemic to Ponape, this plant is of interest because of its large handsome leaves and scarlet, fuzzy, usually one-seeded pods. It deserves to be cultivated as an ornamental. (Colonia, 500 ft. alt., 24 March 1957, S. 1751.)

MYRSINACEAE: *Maesa carolinensis* Mez. This species is called "kahbolus." (Mt. Nanalaut, elev. 2,000 ft., 3 June 1957, S. 2004.)

RUBIACEAE: *Ixora coccinea* L. A yellow-flowered low ornamental shrub planted around the Agriculture Station grounds. (Agric. Sta., 25 March 1957, S. 1752.)

GOODENIACEAE: Here, as in the Hall Islands, the species commonly cited as *S. frutescens* must now be called *S. sericea* Vahl, as *S. frutescens* is apparently restricted to the Caribbean area.

VERBENACEAE: *Gmelina asiatica* L. Planted, and tending to escape, at the Agriculture Station (S. 1788).

PANDANACEAE: *Pandanus patina* Martelli. (Summit of Mt. Nanalaut, 2,500 ft. elev., 5 June 1957, S. 2033.) This beautiful species is one of the most perplexing of the Ponapean flora if the question of origin is raised. Its disposition in the genus sectionally is open to doubt. Martelli placed it in Section *Lophostigma*, and Kanehira retained this placement. Yet the plant displays characters which make such a disposition seem precarious. Along with *P. Kanehirae* Martelli and *P. syozoi* Kanehira of Palau, this is one of the most interesting species of the Micronesian flora. *P. patina* forms localized pure stands on several summit areas in Ponape. Its magenta, one-carpellate drupes contain a large edible seed, comparable in flavor to coconut, and sometimes important to hunters or travelers

in Ponape. Seeds of this Ponapean endemic have been germinated in Honolulu, and it is hoped that one of these at least will be male, for the male inflorescence of this species has never been collected.

Glassman (1952: 111-112) thinks that some of the coastal species of *Pandanus* may be forms of *P. dubius* Spr., in reference to the numerous species described by Martelli, Kanehira, and Hosokawa. Probably the only "form" of *P. dubius* which might be found in Ponape would be its close relative, *P. tetradon* (Gaud.) Balf. f., which has recently been collected in Kapingamarangi Atoll (S. 1940, male; S. 1941, female). *P. dubius*, though frequent elsewhere in Micronesia (Palau, Guam, Saipan, Truk, etc.) has apparently not been found in Ponape, though it occurs on Nukuoro Atoll to the south (S. 1952). The coastal species found in Ponape are manifestly of Section *Pandanus*, while *P. dubius* and *P. tetradon* are of Section *Hombrovia*. *P. tetradon* is not found in Ponape, either. It is no doubt true, as Glassman and Fosberg state, that the great majority of the "species" are horticultural forms; but that they are horticultural forms of *P. tectorius* has not yet been shown. Current research on this problem may eventually furnish a solution.

CYPERACEAE: *Scirpodendron ghaeri* (Gaertn.) Merr. This enormous sedge occurs in standing water or mud near streams. It is stemless with erect (but eventually drooping) scabrous leaves up to 14 ft. long, about 2 in. wide, with serrate margins of small crowded teeth 0.5 mm. long, and less than 1 mm. apart. The inflorescence is a racemose spike of bracteate heads, on a sharply triangular stalk 60 × 1.8 cm., subtended by a leaflike bract about 8 ft. long. The nutlets are 1.3 × 1 cm., ellipsoid and strongly ribbed, containing a single globose gray-black seed 0.7 cm.

long. (Net District, banks of Tawensokola River, 17 April 1957, S. 1817.)

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